Title of Instructional Materials: Carnegie Learning: Algebra II Common Core

Grade Level: Algebra II

Summary of Carnegie Learning: Algebra II Common Core

Overall Rating: ☒ Weak (1-2) ☐ Moderate (2-3) ☐ Strong (3-4) **Summary / Justification / Evidence:** Missing standards are as follows: N-CN.8, A-APR.5, A-CED.3, A-REI.11, F-BF.1b, S-MD.6, S-MD.7. The following were not developed well at all or only minimally mentioned: N-CN.2, N-CN.7, N-CN.9, A-APR.4, F-BF.3, A-CED.4F-BF.4a, F-LE.4	Important Mathematical Ideas: ☐ Weak (1-2) ☒ Moderate (2-3) ☐ Strong (3-4) **Summary / Justification / Evidence:** The investigations were good and well developed, but several standards were not well developed in the context of important mathematical ideas.
Skills and Procedures: ☐ Weak (1-2) ☒ Moderate (2-3) ☐ Strong (3-4) **Summary / Justification / Evidence:** Not well connected and seem to be presented as discrete skills in several cases. Not much conceptual understanding outside any context.	Mathematical Relationships: ☐ Weak (1-2) ☒ Moderate (2-3) ☐ Strong (3-4) **Summary / Justification / Evidence:** Some were not developed well or there is no discussion in the context of mathematics as a unified whole or as connections outside mathematics

1. Make sense of problems and persevere in solving them.	
Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They analyze givens, constraints, relationships, and goals. They make conjectures about the form and meaning of the solution and plan a solution pathway rather than simply jumping into a solution attempt. They consider analogous problems, and try special cases and simpler forms of the original problem in order to gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Older students might, depending on the context of the problem, transform algebraic expressions or change the viewing window on their graphing calculator to get the information they need. Mathematically proficient students can explain correspondences between equations, verbal descriptions, tables, and graphs or draw diagrams of important features and relationships, graph data, and search for regularity or trends. Younger students might rely on using concrete objects or pictures to help conceptualize and solve a problem. Mathematically proficient students check their answers to problems using a different method, and they continually ask themselves, "Does this make sense?" They can understand the approaches of others to solving complex problems and identify correspondences between different approaches.	
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
Summary / Justification / Evidence:	**Overall Rating**: ☐1 ☐2 ☒3 ☐4

2. Reason abstractly and quantitatively.	
Mathematically proficient students make sense of quantities and their relationships in problem situations. They bring two complementary abilities to bear on problems involving quantitative relationships: the ability to *decontextualize*—to abstract a given situation and represent it symbolically and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents—and the ability to *contextualize*, to pause as needed during the manipulation process in order to probe into the referents for the symbols involved. Quantitative reasoning entails habits o creating a coherent representation of the problem at hand; considering the units involved; attending to the meaning of quantities, not just how to compute them; and knowing and flexibly using different properties of operations and objects.	
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
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3. Construct viable arguments and critique the reasoning of others.

Mathematically proficient students understand and use stated assumptions, definitions, and previously established results in constructing arguments. They make conjectures and build a logical progression of statements to explore the truth of their conjectures. They are able to analyze situations by breaking them into cases, and can recognize and use counterexamples. They justify their conclusions, communicate them to others, and respond to the arguments of others. They reason inductively about data, making plausible arguments that take into account the context from which the data arose. Mathematically proficient students are also able to compare the effectiveness of two plausible arguments, distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in an argument—explain what it is. Elementary students can construct arguments using concrete referents such as objects, drawings, diagrams, and actions. Such arguments can make sense and be correct, even though they are not generalized or made formal until later grades. Later, students learn to determine domains to which an argument applies. Students at all grades can listen or read the arguments of others, decide whether they make sense, and ask useful questions to clarify or improve the arguments.

Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
Summary / Justification / Evidence:	**Overall Rating**: ☐1 ☐2 ☒3 ☐4

4. Model with mathematics.	
Mathematically proficient students can apply the mathematics they know to solve problems arising in everyday life, society, and the workplace. In early grades, this might be as simple as writing an addition equation to describe a situation. In middle grades, a student might apply proportional reasoning to plan a school event or analyze a problem in the community. By high school, a student might use geometry to solve a design problem or use a function to describe how one quantity of interest depends on another. Mathematically proficient students who can apply what they know are comfortable making assumptions and approximations to simplify a complicatedsituation, realizing that these may need revision later. They are able to identify important quantities in a practical situation and map their relationships using such tools as diagrams, two-way tables, graphs, flowcharts and formulas. They can analyze those relationships mathematically to draw conclusions. They routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose.	
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
Summary / Justification / Evidence:	**Overall Rating**: ☐1 ☐2 ☒3 ☐4

5. Use appropriate tools strategically.	
Mathematically proficient students consider the available tools when solving amathematical problem. These tools might include pencil and paper, concretemodels, a ruler, a protractor, a calculator, a spreadsheet, a computer algebra system,a statistical package, or dynamic geometry software. Proficient students aresufficiently familiar with tools appropriate for their grade or course to make sounddecisions about when each of these tools might be helpful, recognizing both theinsight to be gained and their limitations. For example, mathematically proficienthigh school students analyze graphs of functions and solutions generated using agraphing calculator. They detect possible errors by strategically using estimationand other mathematical knowledge. When making mathematical models, they knowthat technology can enable them to visualize the results of varying assumptions,explore consequences, and compare predictions with data. Mathematicallyproficient students at various grade levels are able to identify relevant externalmathematical resources, such as digital content located on a website, and use themto pose or solve problems. They are able to use technological tools to explore anddeepen their understanding of concepts.	
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
Summary / Justification / Evidence:	**Overall Rating**: ☐1 ☐2 ☒3 ☐4

6. Attend to precision.	
Mathematically proficient students try to communicate precisely to others. They try to use clear definitions in discussion with others and in their own reasoning. They state the meaning of the symbols they choose, including using the equal sign consistently and appropriately. They are careful about specifying units of measure, and labeling axes to clarify the correspondence with quantities in a problem. They calculate accurately and efficiently, express numerical answers with a degree of precision appropriate for the problem context. In the elementary grades, students give carefully formulated explanations to each other. By the time they reach high school they have learned to examine claims and make explicit use of definitions.	
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7. Look for and make use of structure.	
Mathematically proficient students look closely to discern a pattern or structure.Young students, for example, might notice that three and seven more is the sameamount as seven and three more, or they may sort a collection of shapes accordingto how many sides the shapes have. Later, students will see 7 °— 8 equals thewell-remembered 7 °— 5 + 7 °— 3, in preparation for learning about the distributiveproperty. In the expression $x2 + 9x + 14$, older students can see the 14 as 2 °— 7 andthe 9 as 2 + 7. They recognize the significance of an existing line in a geometricfigure and can use the strategy of drawing an auxiliary line for solving problems.They also can step back for an overview and shift perspective. They can seecomplicated things, such as some algebraic expressions, as single objects or asbeing composed of several objects. For example, they can see $5 – 3(x – y)2$ as 5minus a positive numbe times a square and use that to realize that its value cannotbe more than 5 for any real numbers x and y.	
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
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8. Look for and express regularity in repeated reasoning.	
Mathematically proficient students notice if calculations are repeated, and lookboth for general methods and for shortcuts. Upper elementary students mightnotice when dividing 25 by 11 that they are repeating the same calculations overand over again, and conclude they have a repeating decimal. By paying attention to the calculation of slope as they repeatedly check whether points are on the line through (1, 2) with slope 3, middle school students might abstract the equation$(y - 2)/(x - 1) = 3$. Noticing the regularity in the way terms cancel when expanding$(x - 1)(x + 1)$, $(x - 1)(x2 + x + 1)$, and $(x - 1)(x3 + x2 + x + 1)$ might lead them to thegeneral formula for the sum of a geometric series. As they work to solve a problem,mathematically proficient students maintain oversight of the process, whileattending to the details. They continually evaluate the reasonableness of theirintermediate results.	
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Reviewed By: _____

Title of Instructional Materials: Carnegie

Documenting Alignment to the Standards for Mathematical Practice

1. Make sense of problems and persevere in solving them.

Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They analyze givens, constraints, relationships, and goals. They make conjectures about the form and meaning of the solution and plan a solution pathway rather than simply jumping into a solution attempt. They consider analogous problems, and try special cases and simpler forms of the original problem in order to gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Older students might, depending on the context of the problem, transform algebraic expressions or change the viewing window on their graphing calculator to get the information they need. Mathematically proficient students can explain correspondences between equations, verbal descriptions, tables, and graphs or draw diagrams of important features and relationships, graph data, and search for regularity or trends. Younger students might rely on using concrete objects or pictures to help conceptualize and solve a problem. Mathematically proficient students check their answers to problems using a different method, and they continually ask themselves, "Does this make sense?" They can understand the approaches of others to solving complex problems and identify correspondences between different approaches.

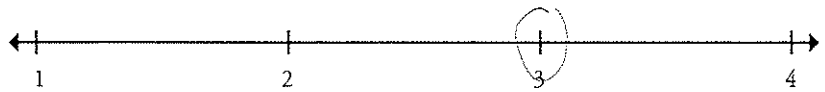
p 331 Lesson 8.4 Problem 2 Mortgages: Determine down payment, amt of loan, monthly payment, total amt of $ paid, interest paid.

Indicate the chapter(s), section(s), or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating



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Reviewed By: _____

Title of Instructional Materials: Carnegie

Documenting Alignment to the Standards for Mathematical Practice

2. Reason abstractly and quantitatively.

Mathematically proficient students make sense of quantities and their relationships in problem situations. They bring two complementary abilities to bear on problems involving quantitative relationships: the ability to decontextualize—to abstract a given situation and represent it symbolically and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents—and the ability to contextualize, to pause as needed during the manipulation process in order to probe into the referents for the symbols involved. Quantitative reasoning entails habits of creating a coherent representation of the problem at hand; considering the units involved; attending to the meaning of quantities, not just how to compute them; and knowing and flexibly using different properties of operations and objects.

p 359: Completing a table, finding rates of change

Indicate the chapter(s), section(s), or page(s) reviewed.

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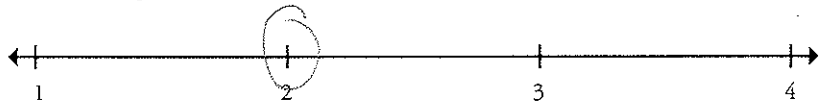

Reviewed By: _____

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Documenting Alignment to the Standards for Mathematical Practice

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p 145-146: Problem 2 End Behavior
Lesson 3.6

Indicate the chapter(s), section(s), or page(s) reviewed.

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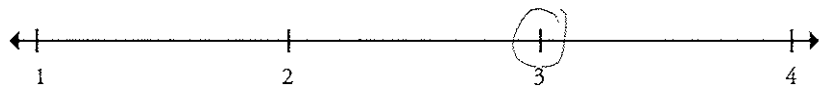
Summary/Justification/Evidence

Overall Rating



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p 601 - 11.5 - Rabbits Everywhere. Given an eq 5's need to determine the pop [illegible] period. Graph the data & analyze the parts of the graph & explain what it means

Indicate the chapter(s), section(s), or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

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Documenting Alignment to the Standards for Mathematical Practice

5. Use appropriate tools strategically.

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Car Loan p 327 Lesson 8.4 use a GC to determine a monthly payment for a car loan. Look at different interest rates. Reanalyze the problem by making $500 amount - How many payments? How much saved?

Indicate the chapter(s), section(s), or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

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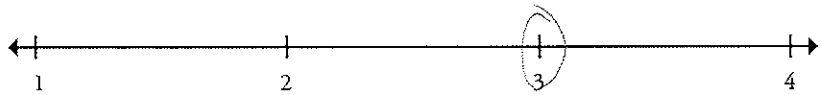

Reviewed By: _____

Title of Instructional Materials: Carnegie

Documenting Alignment to the Standards for Mathematical Practice

6. Attend to precision.

Mathematically proficient students try to communicate precisely to others. They try to use clear definitions in discussion with others and in their own reasoning. They state the meaning of the symbols they choose, including using the equal sign consistently and appropriately. They are careful about specifying units of measure, and labeling axes to clarify the correspondence with quantities in a problem. They calculate accurately and efficiently, express numerical answers with a degree of precision appropriate for the problem context. In the elementary grades, students give carefully formulated explanations to each other. By the time they reach high school they have learned to examine claims and make explicit use of definitions.

p601-11.5 Rabbits everywhere Problems - use definits to explain what they mean to the graph. Graph must be labeled correctly

Indicate the chapter(s), section(s), or page(s) reviewed.

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1 2 3 4

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Title of Instructional Materials: Carnegie

Documenting Alignment to the Standards for Mathematical Practice

7. Look for and make use of structure.

Mathematically proficient students look closely to discern a pattern or structure. Young students, for example, might notice that three and seven more is the same amount as seven and three more, or they may sort a collection of shapes according to how many sides the shapes have. Later, students will see 7×8 equals the well remembered $7 \times 5 + 7 \times 3$, in preparation for learning about the distributive property. In the expression $x^2 + 9x + 14$, older students can see the 14 as 2×7 and the 9 as $2 + 7$. They recognize the significance of an existing line in a geometric figure and can use the strategy of drawing an auxiliary line for solving problems. They also can step back for an overview and shift perspective. They can see complicated things, such as some algebraic expressions, as single objects or as being composed of several objects. For example, they can see $5 - 3(x - y)^2$ as 5 minus a positive number times a square and use that to realize that its value cannot be more than 5 for any real numbers x and y.

p 481: Investigation: Factoring

Indicate the chapter(s), section(s), or page(s) reviewed.

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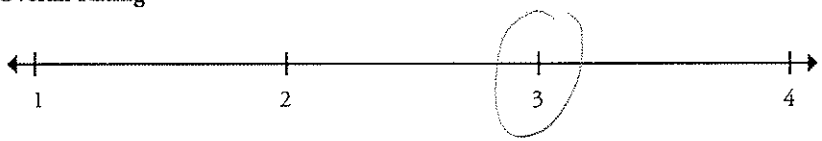

Reviewed By: _____

Title of Instructional Materials: Carnegie

Documenting Alignment to the Standards for Mathematical Practice

8. Look for and express regularity in repeated reasoning.

Mathematically proficient students notice if calculations are repeated, and look both for general methods and for shortcuts. Upper elementary students might notice when dividing 25 by 11 that they are repeating the same calculations over and over again, and conclude they have a repeating decimal. By paying attention to the calculation of slope as they repeatedly check whether points are on the line through (1, 2) with slope 3, middle school students might abstract the equation $(y - 2)/(x - 1) = 3$. Noticing the regularity in the way terms cancel when expanding $(x - 1)(x + 1)$, $(x - 1)(x^2 + x + 1)$, and $(x - 1)(x^3 + x2 + x + 1)$ might lead them to the general formula for the sum of a geometric series. As they work to solve a problem, mathematically proficient students maintain oversight of the process, while attending to the details. They continually evaluate the reasonableness of their intermediate results.

p 230: problem 2 multiply a complex # by its conjugate. What happened. Explain. Shortcuts?

Indicate the chapter(s), section(s), or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

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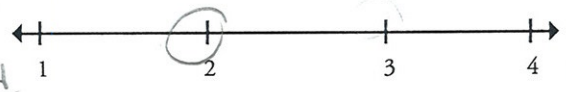
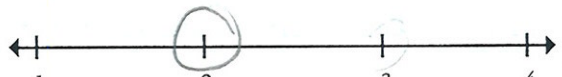
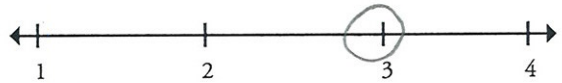
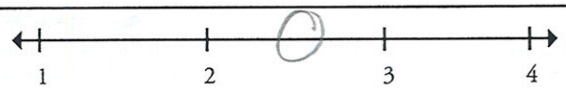
Title of Instructional Materials: Carnegie

ALGEBRA II — NUMBER AND QUANTITY (N)

The Complex Number System (N-CN)

Perform arithmetic operations with complex numbers.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
N-CN.1 Know there is a complex number *i* such that $i^2 = -1$, and every complex number has the form $a + bi$ with *a* and *b* real. 4-3 p 226 a+bi 8-14 **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas  1 2 3 4 straight forward Skills and Procedures  1 2 3 4 Mathematical Relationships  1 2 3 4 some explaination problems **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating  1 2 3 4

Reviewed By: _____

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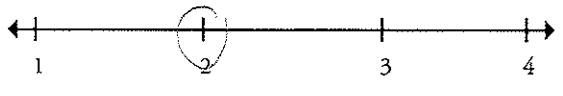
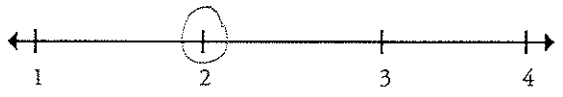
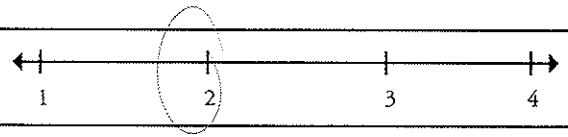
ALGEBRA II — NUMBER AND QUANTITY (N)

The Complex Number System (N-CN)

Perform arithmetic operations with complex numbers.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
N-CN.2 Use the relation $i^2 = -1$ and the commutative, associative, and distributive properties to add, subtract, and multiply complex numbers. Note: i^2 as highest power of i. 4, 4 p229 1a, b, c, d **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 few problems Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 1 2 3 4





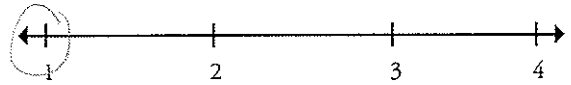
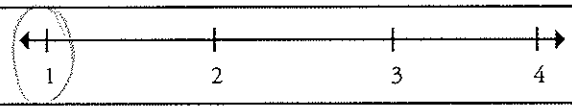


Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA II — NUMBER AND QUANTITY (N)

The Complex Number System (N-CN)

Use complex numbers in polynomial identities and equations.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
N-CN.7 Solve quadratic equations with real coefficients that have complex solutions. Note: Polynomials with real coefficients. p 226 4.3 2 problems # 21-26 **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas  Skills and Procedures Mathematical Relationships **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

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ALGEBRA II — NUMBER AND QUANTITY (N)

The Complex Number System (N-CN)

Use complex numbers in polynomial identities and equations.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
N-CN.8 (+) Extend polynomial identities to the complex numbers. *For example, rewrite $x^2 + 4$ as $(x + 2i)(x – 2i)$.* Note: Polynomials with real coefficients. **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Not covered Overall Rating 0 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: Carnegie

ALGEBRA II — NUMBER AND QUANTITY (N)

The Complex Number System (N-CN)

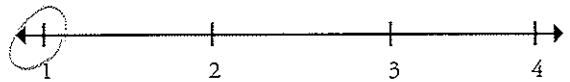
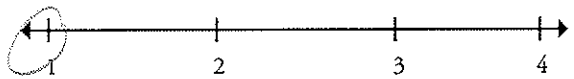
Use complex numbers in polynomial identities and equations.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
N-CN.9 (+) Know the Fundamental Theorem of Algebra; show that it is true for quadratic polynomials. Note: Polynomials with real coefficients. 10.3: p 383 - stated Fund Thm of Alg 10.4 p 387 - factoring quadratics - Not many problems solving quadratics **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas: 1 2 3 4 Skills and Procedures: 1 2 3 4 Mathematical Relationships: 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating: 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA II — ALGEBRA (A)

Seeing Structure in Expressions (A-SSE)

Interpret the structure of expressions.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
A-SSE.1a 1. Interpret expressions that represent a quantity in terms of its context.* a. Interpret parts of an expression, such as terms, factors, and coefficients. Note: Polynomial and rational. 10.2 – 10.5 p365 correct terminology is used but not using coefficient **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating

Reviewed By: _____

Title of Instructional Materials: Carnegie

ALGEBRA II — ALGEBRA (A)

Seeing Structure in Expressions (A-SSE)

Interpret the structure of expressions.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
A-SSE.1b 1. Interpret expressions that represent a quantity in terms of its context.* b. Interpret complicated expressions by viewing one or more of their parts as a single entity. *For example, interpret $P(1+r)^n$ as the product of P and a factor not depending on P.* Note: Polynomial and rational. 8.3: p 321 #1 n=K log(A) find K **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 RW problems Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: Carnegie

ALGEBRA II — ALGEBRA (A)

Seeing Structure in Expressions (A-SSE)

Interpret the structure of expressions.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
A-SSE.2 Use the structure of an expression to identify ways to rewrite it. *For example, see $x^4 - y^4$ as $(x^2)^2 - (y^2)^2$, thus recognizing it as a difference of squares that can be factored as $(x^2 - y^2)(x^2 + y^2)$.* Note: Polynomial and rational. 10.5 p479 Factoring p481 **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Very few problems Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 1 2 3 4

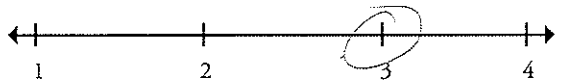
Reviewed By: _____

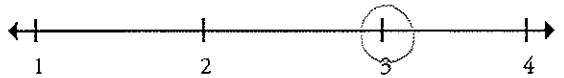
Title of Instructional Materials: Carnegie

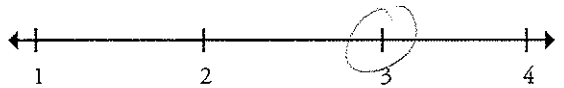
ALGEBRA II — ALGEBRA (A)

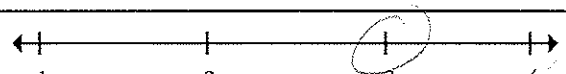
Seeing Structure in Expressions (A-SSE)

Write expressions in equivalent forms to solve problems.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-SSE.4 Derive the formula for the sum of a finite geometric series (when the common ratio is not 1), and use the formula to solve problems. *For example, calculate mortgage payments.** 12.1 12.2 HW doubling model 12.3 p645 problem 2 12.4 Sum of an infinite geo series **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Investigation Skills and Procedures 1 2 3 4 [illegible] problems Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 1 2 3 4









Reviewed By: _____

Title of Instructional Materials: Carnegie

ALGEBRA II — ALGEBRA (A)

Arithmetic with Polynomials and Rational Expressions (A-APR)

Perform arithmetic operations on polynomials.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-APR.1 Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials. Note: Beyond quadratic. The concep of closed is discussed in another chapter but not here. +, −, × is covered **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas: 1 **2** 3 4 Skills and Procedures: 1 **2** 3 4 Basic problems Mathematical Relationships: 1 **2** 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** closed polynomials is not discussed Overall Rating: 1 **2** 3 4

Reviewed By: _____

Title of Instructional Materials: Carnegie

ALGEBRA II — ALGEBRA (A)

Arithmetic with Polynomials and Rational Expressions (A-APR)

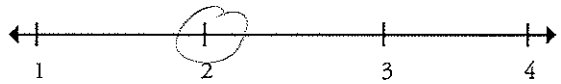
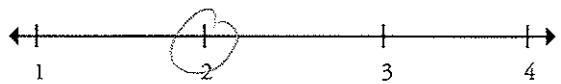
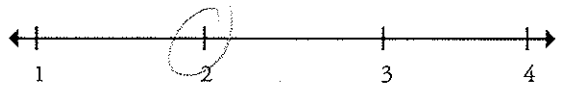
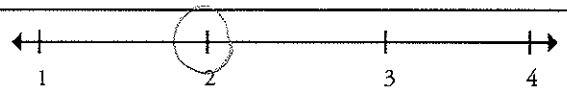
Understand the relationship between zeros and factors of polynomials.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
A-APR.2 Know and apply the Remainder Theorem: For a polynomial $p(x)$ and a number a, the remainder on division by $x - a$ is $p(a)$, so $p(a) = 0$ if and only if $(x - a)$ is a factor of $p(x)$. p 397; Lesson 10.5 **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Thm just stated Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: Carnegie

ALGEBRA II — ALGEBRA (A)

Arithmetic with Polynomials and Rational Expressions (A-APR)

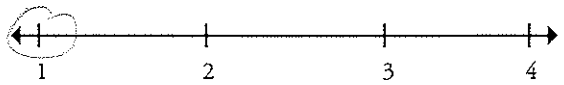
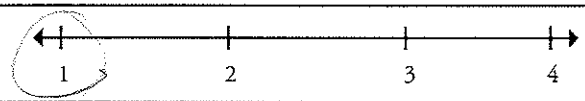
Understand the relationship between zeros and factors of polynomials.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-APR.3 Identify zeros of polynomials when suitable factorizations are available, and use the zeros to construct a rough graph of the function defined by the polynomial. p135 Lesson 3.5 Problem 2 just stated. No examples to look at **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

Reviewed By: _____

Title of Instructional Materials: Carnegie

ALGEBRA II — ALGEBRA (A)

Arithmetic with Polynomials and Rational Expressions (A-APR)

Use polynomial identities to solve problems.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
A-APR.4 Prove polynomial identities and use them to describe numerical relationships. *For example, the polynomial identity* $(x^2 + y^2)^2 = (x^2 - y^2)^2 + (2xy)^2$ *can be used to generate Pythagorean triples.* Can't find this concept covered p 135 Lesson 3.5 Problem #2 prove only one problem **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas  Skills and Procedures Mathematical Relationships **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA II — ALGEBRA (A)

Arithmetic with Polynomials and Rational Expressions (A-APR)

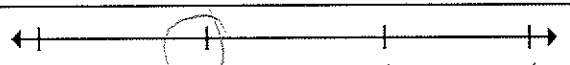
Use polynomial identities to solve problems.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-APR.5 (+) Know and apply the Binomial Theorem for the expansion of $(x + y)^n$ in powers of x and y for a positive integer n, where x and y are any numbers, with coefficients determined for example by Pascal's Triangle.[1] Binomial Thm? can't find 1 The Binomial Theorem can be proved by mathematical induction or by a combinatorial argument. **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: Carnegie

ALGEBRA II — ALGEBRA (A)

Arithmetic with Polynomials and Rational Expressions (A-APR)

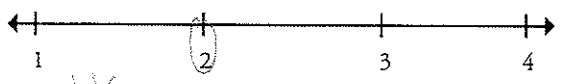
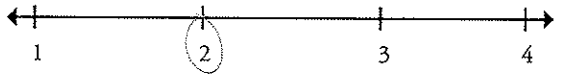
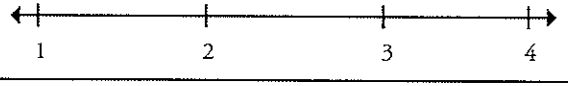
Rewrite rational expressions.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
A-APR.6 Rewrite simple rational expressions in different forms; write $a(x)/b(x)$ in the form $q(x) + r(x)/b(x)$, where $a(x)$, $b(x)$, $q(x)$, and $r(x)$ are polynomials with the degree of $r(x)$ less than the degree of $b(x)$, using inspection, long division, or, for the more complicated examples, a computer algebra system. Note: Linear and quadratic denominators. Lesson 10.4 p 387 **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas straight forward Skills and Procedures no application problems Mathematical Relationships **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 

Reviewed By: _____

Title of Instructional Materials: Carnegie

ALGEBRA II — ALGEBRA (A)

Arithmetic with Polynomials and Rational Expressions (A-APR)

Rewrite rational expressions.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
A-APR.7 (+) Understand that rational expressions form a system analogous to the rational numbers, closed under addition, subtraction, multiplication, and division by a nonzero rational expression; add, subtract, multiply, and divide rational expressions. Note: Linear and quadratic denominators. p 363 (Lesson 7.2) Problem 2 Add + Sub p 365 (Lesson 7.3) Mult + Div **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas No investigation Skills and Procedures  no real world problems Mathematical Relationships  **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Closure of Rational Numbers is not discussed here but is covered in chp 4 with Real numbers Overall Rating 

Reviewed By: _____

Title of Instructional Materials: Carnegie

ALGEBRA II — ALGEBRA (A)

Creating Equations (A-CED)

Create equations that describe numbers or relationships.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
A-CED.1 Create equations and inequalities in one variable and use them to solve problems. *Include equations arising from linear and quadratic functions, and simple ~~rational~~ and ~~exponential~~ functions.** Note: Equations using all available types of expressions, including ~~simple root functions~~. Rational (7.4) s's do not create any, they just solve them (no word problems to solve) Radical (8.3) " Polynomial (10.8)(p417) " Log(9.2) p 349; " Linear (4.2)? solve only **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** exponential? Overall Rating 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: Carnegie

ALGEBRA II — ALGEBRA (A)

Creating Equations (A-CED)

Create equations that describe numbers or relationships.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-CED.2 Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.* Note: Equations using all available types of expressions, including simple root functions. 8.4 - Not covered here No graphing or creating eq 9.3 p351, write a function given $P = P_0 e^{rt}$ + then graph (exp function) p354 Problem 2 - write an eq but don't graph 2ND one → Chp 10 Not covered here **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 7.6 p402 Mixture problem - write an eq + graph (rational function) p405: ownership problem - 2ND one → Chp 8 - Radical - Not covered here 11.5 p601: Applications of Circular Functions Trig - eq is given, but general data + graph	Important Mathematical Ideas: 1 2 3 4 Skills and Procedures: 1 2 3 4 Mathematical Relationships: 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating: 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA II — ALGEBRA (A)

Creating Equations (A-CED)

Create equations that describe numbers or relationships.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
A-CED.3 Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or non-viable options in a modeling context. *For example, represent inequalities describing nutritional and cost constraints on combinations of different foods.** Note: Equations using all available types of expressions, including simple root functions. Not sure if covered can't find Chp 10? (Right after Chp 9) **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: Col Alg

ALGEBRA II — ALGEBRA (A)

Creating Equations (A-CED)

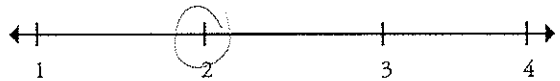
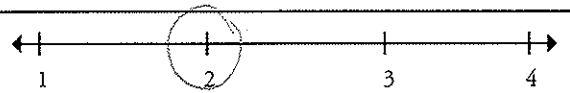
Create equations that describe numbers or relationships.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-CED.4 Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations. *For example, rearrange Ohm's law V = IR to highlight resistance R.** Note: Equations using all available types of expressions, including simple root functions. Sec 8.3 p 324 problem # 3 $\frac{1}{2}A_0 = A_0 e^{kt}$ solve for k only one problem exp / Log Functions **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA II — ALGEBRA (A)

Reasoning with Equations and Inequalities (A-REI)

Understand solving equations as a process of reasoning and explain the reasoning.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
A-REI.2 Solve simple rational and radical equations in one variable, and give examples showing how extraneous solutions may arise. Note: Simple radical and rational. Rational p 374 sec 7.4 5C, 6 4 problems Radical p 431 sec 9.3 problem 2 **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas Skills and Procedures Mathematical Relationships  Applied to the distance formula **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 

Reviewed By: _____

Title of Instructional Materials: Glencoe

ALGEBRA II — ALGEBRA (A)

Reasoning with Equations and Inequalities (A-REI)

Represent and solve equations and inequalities graphically.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
A-REI.11 Explain why the *x*-coordinates of the points where the graphs of the equations $y = f(x)$ and $y = g(x)$ intersect are the solutions of the equation $f(x) = g(x)$; find the solutions approximately, e.g., using technology to graph the functions, make tables of values, or find successive approximations. Include cases where $f(x)$ and/or $g(x)$ are linear, polynomial, rational, absolute value, exponential, and logarithmic functions.* Note: Combine polynomial, rational, radical, absolute value, and exponential functions. Chp 3 polynomially - not found Chp 10 11 980 **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Not found Overall Rating 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: Carnegie

ALGEBRA II — FUNCTIONS (F)

Interpreting Functions (F-IF)

Interpret functions that arise in applications in terms of the context.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-IF.4 For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. *Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity.** Note: Include ~~rational~~, ~~square root~~ and ~~cube root~~; emphasize selection of appropriate models. (1st one) → 7.3 log (p 297) increasing / decreasing / intercepts 3.6 polynomial (p 141) relative max / min, end behavior, intercepts (2nd one) → 7.5 (p 383) rational; increasing/decreasing, asymptote, end behavior **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 8.4 sq root & cub root, end behavior	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA II — FUNCTIONS (F)

Interpreting Functions (F-IF)

Interpret functions that arise in applications in terms of the context.

F-IF.5

Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes. *For example, if the function h(n) gives the number of person-hours it takes to assemble n engines in a factory, then the positive integers would be an appropriate domain for the function.**

Note: Emphasize selection of appropriate models.

(1st one) → p298, 7.3, Log Problem 3 - domain

p141, 3.6, domain & Range of polynomial functions

(2nd one) → p387 7.5: rational - domain

Covered in several application problems

Indicate the chapter(s), section(s), and/or page(s) reviewed.

Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.

Important Mathematical Ideas

Skills and Procedures

Mathematical Relationships

Summary / Justification / Evidence

Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):

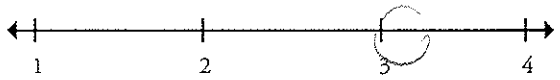
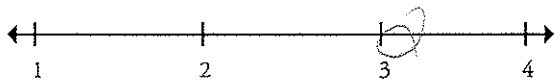
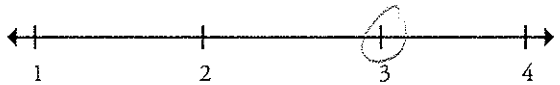
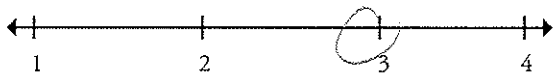
Overall Rating

Reviewed By: _____

Title of Instructional Materials: Carnegie

ALGEBRA II — FUNCTIONS (F)

Interpreting Functions (F-IF)

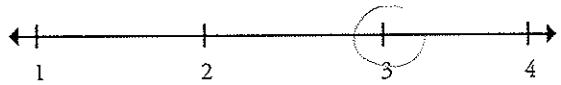
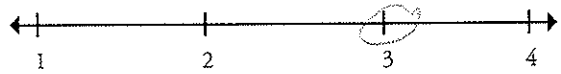
Interpret functions that arise in applications in terms of the context.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-IF.6 Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.* Note: Emphasize selection of appropriate models. p 359 Population table = rate of change. This is for an exponential function. **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): Linear Function?
	Overall Rating 

Reviewed By: _____

Title of Instructional Materials: Carnegie

ALGEBRA II — FUNCTIONS (F)

Interpreting Functions (F-IF)

Analyze functions using different representations.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-IF.7b 7. Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.* b. Graph ~~square~~ root, ~~cube root,~~ and piecewise-defined functions, including ~~step functions~~ and absolute value functions. Note: Focus on using key features to guide selection of appropriate type of model function. Lesson 8.4 sq root, cube root Lesson 7.5 Step Functions problem 3 **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Absolute value Overall Rating

Reviewed By: _____

Title of Instructional Materials: Carnegie

ALGEBRA II — FUNCTIONS (F)

Interpreting Functions (F-IF)

Analyze functions using different representations.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
F-IF.7c 7. Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.* c. Graph polynomial functions, identifying zeros when suitable factorizations are available, and showing end behavior. Note: Focus on using key features to guide selection of appropriate type of model function. p110: Lesson 3.2 Polynomial (End D, R, Int, Zeros using G.C) These can all be done by hand p137: Factor, zeros, end behavior, graph by hand **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: Carnegie

ALGEBRA II — FUNCTIONS (F)

Interpreting Functions (F-IF)

Analyze functions using different representations.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-IF.7e 7. Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.* e. Graph exponential and ~~logarithmic functions~~, showing intercepts and end behavior, and ~~trigonometric~~ functions, showing period, midline, and amplitude. Note: Focus on using key features to guide selection of appropriate type of model function. 11.2 : Trig - show period, midline, amplitude 7.3, 7.4 : Log functions, basic & transformations 7.1 : very simple exp functions eg $y=3^x$ (p 103) 3.1 : Power functions **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA II — FUNCTIONS (F)

Interpreting Functions (F-IF)

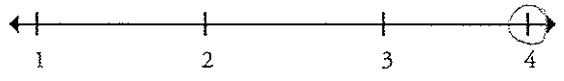
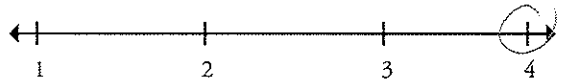
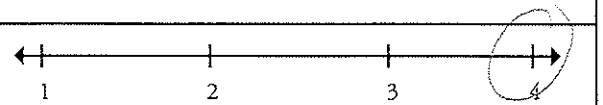
Analyze functions using different representations.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
F-IF.8a 8. Write a function defined by an expression in different but equivalent forms to reveal and explain different properties of the function. a. Use the process of factoring and completing the square in a quadratic function to show zeros, extreme values, and symmetry of the graph, and interpret these in terms of a context. Note: Focus on using key features to guide selection of appropriate type of model function. Lesson 3.5 p131: Find zeros by factoring a quadratic, using the Quadratic Formula & a G.C. Graph **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas: 1 2 3 4 Skills and Procedures: 1 2 3 4 Mathematical Relationships: 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Can't find completing the sq or symmetry, extreme values Overall Rating: 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: Carnegie

ALGEBRA II — FUNCTIONS (F)

Interpreting Functions (F-IF)

Analyze functions using different representations.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-IF.8b 8. Write a function defined by an expression in different but equivalent forms to reveal and explain different properties of the function. b. Use the properties of exponents to interpret expressions for exponential functions. *For example, identify percent rate of change in functions such as* $y = (1.02)^t$, $y = (0.97)^t$, $y = (1.01)^{12t}$, $y = (1.2)^{t/10}$, *and classify them as representing exponential growth or decay.* Note: Focus on using key features to guide selection of appropriate type of model function. Lesson 8.3 p319 Application problem exp growth + decay **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

Reviewed By: _____

Title of Instructional Materials: Carnegie

ALGEBRA II — FUNCTIONS (F)

Interpreting Functions (F-IF)

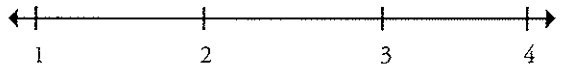
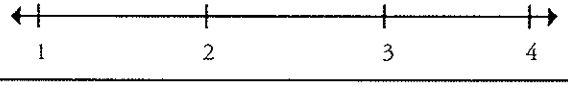
Analyze functions using different representations.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
F-IF.9 Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). *For example, given a graph of one quadratic function and an algebraic expression for another, say which has the larger maximum.* Note: Focus on using key features to guide selection of appropriate type of model function. Lesson 7.3/7.4 Compare exp & log graphs Lesson 3.7 ; compare table + graphs of 4 models **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: Carnegie

ALGEBRA II — FUNCTIONS (F)

Building Functions (F-BF)

Build a function that models a relationship between two quantities.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
F-BF.1b 1. Write a function that describes a relationship between two quantities.* b. Combine standard function types using arithmetic operations. *For example, build a function that models the temperature of a cooling body by adding a constant function to a decaying exponential, and relate these functions to the model.* Note: Include all types of functions studied. **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas Skills and Procedures Mathematical Relationships  **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Not covered? Overall Rating 

Reviewed By: _____

Title of Instructional Materials: Carnegie

ALGEBRA II — FUNCTIONS (F)

Building Functions (F-BF)

Build new functions from existing functions.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-BF.3 Identify the effect on the graph of replacing *f(x)* by *f(x) + k*, *k f(x)*, *f(kx)*, and *f(x + k)* for specific values of *k* (both positive and negative); find the value of *k* given the graphs. Experiment with cases and illustrate an explanation of the effects on the graph using technology. *Include recognizing even and odd functions from their graphs and algebraic expressions for them.* Note: Include simple ~~radical, rational~~, and exponential ~~functions~~; emphasize common effect of each transformation across function types. 11.2 : Trig 1st one → 9.4 : Log 3.1 : Exp 2nd one → 7.5 : Rational 8.4 : Radical **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: Carnegie

ALGEBRA II — FUNCTIONS (F)

Building Functions (F-BF)

Build new functions from existing functions.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-BF.4a 4. Find inverse functions. a. Solve an equation of the form $f(x) = c$ for a simple function f that has an inverse and write an expression for the inverse. *For example,* $f(x) = 2x^3$ *or* $f(x) = (x+1)/(x-1)$ *for* $x \neq 1$. Note: Include simple radical, ~~rational~~, and exponential functions; emphasize common effect of each transformation across function types. Lesson 6.1 p 413 Inverse of radical (graphing not algebraically) Lesson 7.1 p 281 Inverse of log by graphing not algebraically (exp)? **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): Not Radical
	Overall Rating 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: Carnegie

ALGEBRA II — FUNCTIONS (F)

Linear, Quadratic, and Exponential Models (F-LE)

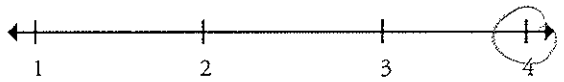
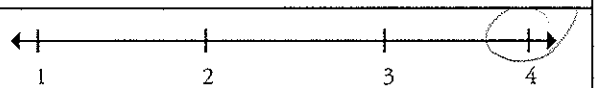
Construct and compare linear, quadratic, and exponential models and solve problems.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
F-LE.4 For exponential models, express as a logarithm the solution to $ab^{ct} = d$ where a, c, and d are numbers and the base b is 2, 10, or e; evaluate the logarithm using technology.* Note: Logarithms as solutions for exponentials. 1st pass → Lesson 7.2? p 289 #1 **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas: 1 2 3 4 Skills and Procedures: 1 2 3 4 only a few basic problems Mathematical Relationships: 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating: 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: Carnegie

ALGEBRA II — FUNCTIONS (F)

Trigonometric Functions (F-TF)

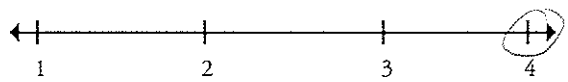
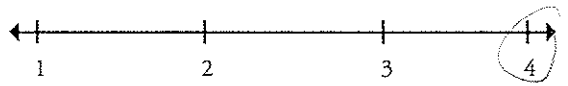
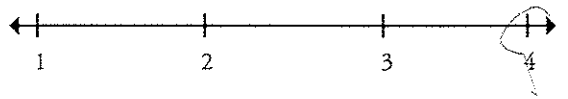
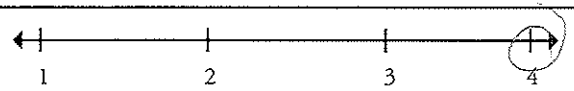
Extend the domain of trigonometric functions using the unit circle.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-TF.1 Understand radian measure of an angle as the length of the arc on the unit circle subtended by the angle. Lesson 10.1 p 530 Radian measure **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas  Skills and Procedures Mathematical Relationships **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

Reviewed By: _____

Title of Instructional Materials: Carnegie

ALGEBRA II — FUNCTIONS (F)

Trigonometric Functions (F-TF)

Extend the domain of trigonometric functions using the unit circle.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-TF.2 Explain how the unit circle in the coordinate plane enables the extension of trigonometric functions to all real numbers, interpreted as radian measures of angles traversed counterclockwise around the unit circle. Lesson 10.1 p529 unit circle **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 

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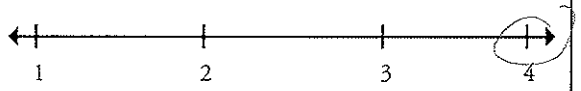
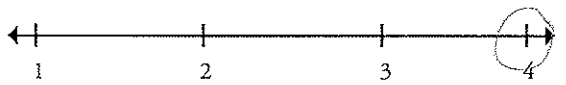
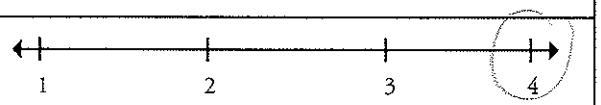
Title of Instructional Materials: Carnegie

ALGEBRA II — FUNCTIONS (F)

Trigonometric Functions (F-TF)

Model periodic phenomena with trigonometric functions.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-TF.5 Choose trigonometric functions to model periodic phenomena with specified amplitude, frequency, and midline.* — Vertical shift Lesson 11.5 p601: Applications - model circular functions Lesson 11.2 p575 amp, freq, phase shift vertical shift **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA II — FUNCTIONS (F)

Trigonometric Functions (F-TF)

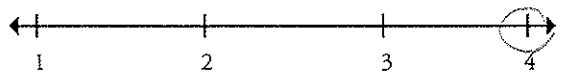
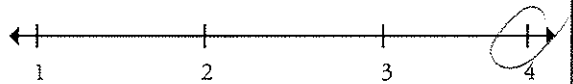
Prove and apply trigonometric identities.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-TF.8 Prove the Pythagorean identity $\sin^2(\theta) + \cos^2(\theta) = 1$ and use it to find $\sin(\theta)$, $\cos(\theta)$, or $\tan(\theta)$ given $\sin(\theta)$, $\cos(\theta)$, or $\tan(\theta)$ and the quadrant of the angle. Lesson 11.3 Trig Identities The Pythagorean Identity p 589 (S's develop this) → Lesson 11.4, Solve Trig Eq **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: Carnegie

ALGEBRA II — STATISTICS AND PROBABILITY (S)

Interpreting Categorical and Quantitative Data (S-ID)

Summarize, represent, and interpret data on a single count or measurement variable.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
S-ID.4 Use the mean and standard deviation of a data set to fit it to a normal distribution and to estimate population percentages. Recognize that there are data sets for which such a procedure is not appropriate. Use calculators, spreadsheets, and tables to estimate areas under the normal curve. p 765 ; Lesson 17.3, 17.4, 17.5 & 17.6, 17.7 **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating

Reviewed By: _____

Title of Instructional Materials: Carnegie

ALGEBRA II — STATISTICS AND PROBABILITY (S)

Making Inferences and Justifying Conclusions (S-IC)

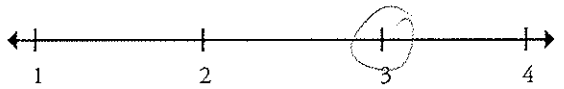
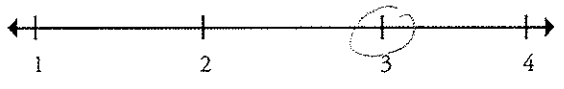
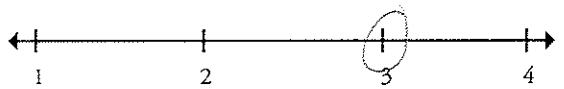
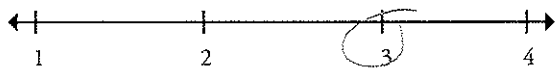
Understand and evaluate random processes underlying statistical experiments.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
S-IC.1 Understand statistics as a process for making inferences about population parameters based on a random sample from that population. Lesson 7.1, 7.2, 7.3 p 309 **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Investigation Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: Carnegie

ALGEBRA II — STATISTICS AND PROBABILITY (S)

Making Inferences and Justifying Conclusions (S-IC)

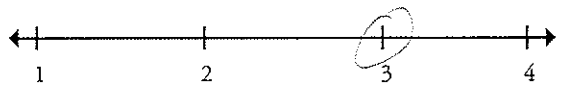
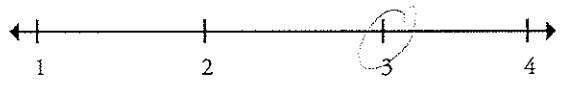
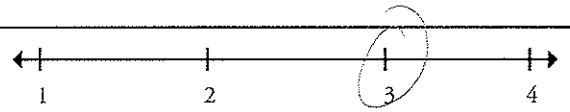
Understand and evaluate random processes underlying statistical experiments.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
S-IC.2 Decide if a specified model is consistent with results from a given data-generating process, e.g., using simulation. *For example, a model says a spinning coin falls heads up with probability 0.5. Would a result of 5 tails in a row cause you to question the model?.* p 763 Lesson 17.1 Problem 3 Penny Toss game. s's actually do this experiment **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA II — STATISTICS AND PROBABILITY (S)

Making Inferences and Justifying Conclusions (S-IC)

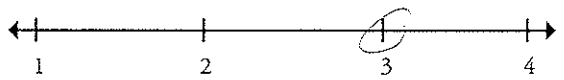
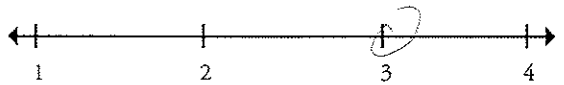
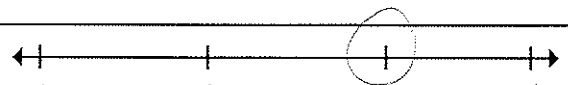
Make inferences and justify conclusions from sample surveys, experiments, and observational studies.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
S-IC.3 Recognize the purposes of and differences among sample surveys, experiments, and observational studies; explain how randomization relates to each. p 737 (1-2) **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 

Reviewed By: _____

Title of Instructional Materials: Carnegie

ALGEBRA II — STATISTICS AND PROBABILITY (S)

Making Inferences and Justifying Conclusions (S-IC)

Make inferences and justify conclusions from sample surveys, experiments, and observational studies.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
S-IC.4 Use data from a sample survey to estimate a population mean or proportion; develop a margin of error through the use of simulation models for random sampling. Chp 7, 16, 17 **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** margin of error Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA II — STATISTICS AND PROBABILITY (S)

Making Inferences and Justifying Conclusions (S-IC)

Make inferences and justify conclusions from sample surveys, experiments, and observational studies.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
S-IC.5 Use data from a randomized experiment to compare two treatments; use simulations to decide if differences between parameters are significant. p 767 Lesson 17.2 Basketballs (make 5 free throws in a row & at least 7 out of 10 free throws) p 783 Lesson 17.3 E-Phone recharging comparing 2 phones **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA II — STATISTICS AND PROBABILITY (S)

Making Inferences and Justifying Conclusions (S-IC)

Make inferences and justify conclusions from sample surveys, experiments, and observational studies.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
S-IC.6 Evaluate reports based on data. p 823 (17.7) Applications of Normal Distribution p 745 (16.4) Evaluate reports p 327 (7.5) s's design their own experiment **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: Carnegie

ALGEBRA II — STATISTICS AND PROBABILITY (S)

Using Probability to Make Decisions (S-MD)

Use probability to evaluate outcomes of decisions	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
S-MD.7 (+) Analyze decisions and strategies using probability concepts (e.g., product testing, medical testing, pulling a hockey goalie at the end of a game). Note: Include more complex situations. **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Not covered Overall Rating 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: Carnegie Learning Alg II : Common Core

Documenting Alignment to the Standards for Mathematical Practice

1. Make sense of problems and persevere in solving them.

Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They analyze givens, constraints, relationships, and goals. They make conjectures about the form and meaning of the solution and plan a solution pathway rather than simply jumping into a solution attempt. They consider analogous problems, and try special cases and simpler forms of the original problem in order to gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Older students might, depending on the context of the problem, transform algebraic expressions or change the viewing window on their graphing calculator to get the information they need. Mathematically proficient students can explain correspondences between equations, verbal descriptions, tables, and graphs or draw diagrams of important features and relationships, graph data, and search for regularity or trends. Younger students might rely on using concrete objects or pictures to help conceptualize and solve a problem. Mathematically proficient students check their answers to problems using a different method, and they continually ask themselves, "Does this make sense?" They can understand the approaches of others to solving complex problems and identify correspondences between different approaches.

Indicate the chapter(s), section(s), or page(s) reviewed.

Chapter ~~[illegible]~~ 8 Polynomial Equations ~~Mult/Div Polynomials~~ and Chapter 5

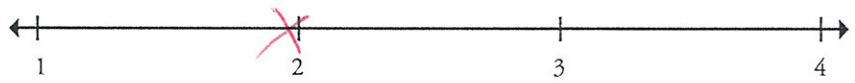
Summary/Justification/Evidence

Ch. 5 In the investigations, students are led thru a Prob. Solv. strategy that asks them to be thorough and use complete sentences, students are also encouraged to share and explain reasoning.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

These two chapters were significantly different Ch. 8 was not well developed ~~and~~ or integrated in real-world

Overall Rating



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Reviewed By: _____

Title of Instructional Materials: _____

Documenting Alignment to the Standards for Mathematical Practice

2. Reason abstractly and quantitatively.

Mathematically proficient students make sense of quantities and their relationships in problem situations. They bring two complementary abilities to bear on problems involving quantitative relationships: the ability to decontextualize—to abstract a given situation and represent it symbolically and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents—and the ability to contextualize, to pause as needed during the manipulation process in order to probe into the referents for the symbols involved. Quantitative reasoning entails habits of creating a coherent representation of the problem at hand; considering the units involved; attending to the meaning of quantities, not just how to compute them; and knowing and flexibly using different properties of operations and objects.

Indicate the chapter(s), section(s), or page(s) reviewed.

Ch. 8

Ch. 5

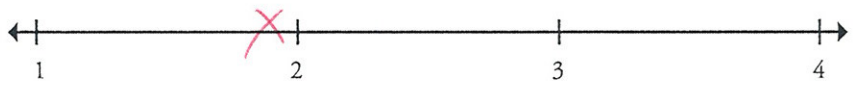
Summary/Justification/Evidence

Ch. 5 Students engage in reasoning by looking for patterns, describing, explaining and evaluating if it makes sense

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Ch. 8 is very sparse in its development of any type of reasoning

Overall Rating



Reviewed By: _____

Title of Instructional Materials: _____

Documenting Alignment to the Standards for Mathematical Practice

3. Construct viable arguments and critique the reasoning of others.

Mathematically proficient students understand and use stated assumptions, definitions, and previously established results in constructing arguments. They make conjectures and build a logical progression of statements to explore the truth of their conjectures. They are able to analyze situations by breaking them into cases, and can recognize and use counterexamples. They justify their conclusions, communicate them to others, and respond to the arguments of others. They reason inductively about data, making plausible arguments that take into account the context from which the data arose. Mathematically proficient students are also able to compare the effectiveness of two plausible arguments, distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in an argument—explain what it is. Elementary students can construct arguments using concrete referents such as objects, drawings, diagrams, and actions. Such arguments can make sense and be correct, even though they are not generalized or made formal until later grades. Later, students learn to determine domains to which an argument applies. Students at all grades can listen or read the arguments of others, decide whether they make sense, and ask useful questions to clarify or improve the arguments.

Indicate the chapter(s), section(s), or page(s) reviewed.

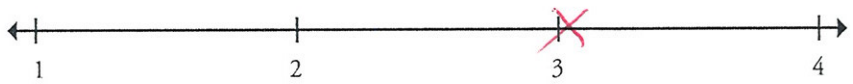
Ch. 5
Ch. 8

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Icons and questions throughout the chapter signal the students to discuss in groups or to share with the class

Overall Rating



Reviewed By: _____

Title of Instructional Materials: _____

Documenting Alignment to the Standards for Mathematical Practice

4. Model with mathematics.

Mathematically proficient students can apply the mathematics they know to solve problems arising in everyday life, society, and the workplace. In early grades, this might be as simple as writing an addition equation to describe a situation. In middle grades, a student might apply proportional reasoning to plan a school event or analyze a problem in the community. By high school, a student might use geometry to solve a design problem or use a function to describe how one quantity of interest depends on another. Mathematically proficient students who can apply what they know are comfortable making assumptions and approximations to simplify a complicated situation, realizing that these may need revision later. They are able to identify important quantities in a practical situation and map their relationships using such tools as diagrams, two-way tables, graphs, flowcharts and formulas. They can analyze those relationships mathematically to draw conclusions. They routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose.

Indicate the chapter(s), section(s), or page(s) reviewed.

Ch. 5, 8

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

well developed in Ch. 5, but not in ch. 8

Summary/Justification/Evidence

Scenarios and problems are designed so that students can relate to real-world problems / situations and apply the math they know to solve problems

Overall Rating

Reviewed By: _____

Title of Instructional Materials: _____

Documenting Alignment to the Standards for Mathematical Practice

5. Use appropriate tools strategically.

Mathematically proficient students consider the available tools when solving a mathematical problem. These tools might include pencil and paper, concrete models, a ruler, a protractor, a calculator, a spreadsheet, a computer algebra system, a statistical package, or dynamic geometry software. Proficient students are sufficiently familiar with tools appropriate for their grade or course to make sound decisions about when each of these tools might be helpful, recognizing both the insight to be gained and their limitations. For example, mathematically proficient high school students analyze graphs of functions and solutions generated using a graphing calculator. They detect possible errors by strategically using estimation and other mathematical knowledge. When making mathematical models, they know that technology can enable them to visualize the results of varying assumptions, explore consequences, and compare predictions with data. Mathematically proficient students at various grade levels are able to identify relevant external mathematical resources, such as digital content located on a website, and use them to pose or solve problems. They are able to use technological tools to explore and deepen their understanding of concepts.

Indicate the chapter(s), section(s), or page(s) reviewed.

Ch. 5 Ch. 8

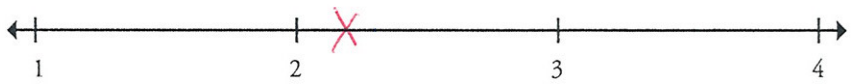
Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

only in a few instances students were asked to use a graphing calculator.

Summary/Justification/Evidence

~~and~~ there are many tools available in the supplement materials. Students are asked to share their methods ... which encourages using whatever tools are available

Overall Rating



Reviewed By: _____

Title of Instructional Materials: _____

Documenting Alignment to the Standards for Mathematical Practice

6. Attend to precision.

Mathematically proficient students try to communicate precisely to others. They try to use clear definitions in discussion with others and in their own reasoning. They state the meaning of the symbols they choose, including using the equal sign consistently and appropriately. They are careful about specifying units of measure, and labeling axes to clarify the correspondence with quantities in a problem. They calculate accurately and efficiently, express numerical answers with a degree of precision appropriate for the problem context. In the elementary grades, students give carefully formulated explanations to each other. By the time they reach high school they have learned to examine claims and make explicit use of definitions.

Indicate the chapter(s), section(s), or page(s) reviewed.

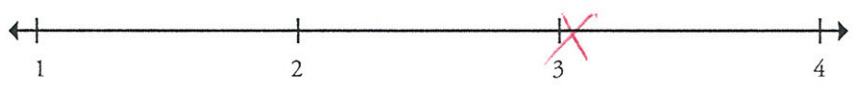
Ch. 5 , Ch. 8

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Students are regularly asked to respond in Complete Sentences and use appropriate labels. Also, they are repeatedly asked to check for answers for reasonableness

Overall Rating



Reviewed By: _____

Title of Instructional Materials: _____

Documenting Alignment to the Standards for Mathematical Practice

7. Look for and make use of structure.

Mathematically proficient students look closely to discern a pattern or structure. Young students, for example, might notice that three and seven more is the same amount as seven and three more, or they may sort a collection of shapes according to how many sides the shapes have. Later, students will see 7×8 equals the well remembered $7 \times 5 + 7 \times 3$, in preparation for learning about the distributive property. In the expression $x^2 + 9x + 14$, older students can see the 14 as 2×7 and the 9 as $2 + 7$. They recognize the significance of an existing line in a geometric figure and can use the strategy of drawing an auxiliary line for solving problems. They also can step back for an overview and shift perspective. They can see complicated things, such as some algebraic expressions, as single objects or as being composed of several objects. For example, they can see $5 - 3(x - y)^2$ as 5 minus a positive number times a square and use that to realize that its value cannot be more than 5 for any real numbers x and y.

Indicate the chapter(s), section(s), or page(s) reviewed.

Ch. 5, 8

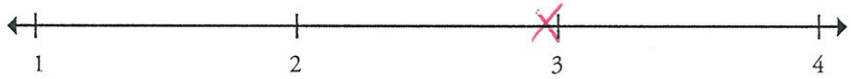
Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

~~[illegible]~~

scaffolded questions throughout where students look for patterns and discuss/explain

Overall Rating



Reviewed By: _____

Title of Instructional Materials: _____

Documenting Alignment to the Standards for Mathematical Practice

8. Look for and express regularity in repeated reasoning.

Mathematically proficient students notice if calculations are repeated, and look both for general methods and for shortcuts. Upper elementary students might notice when dividing 25 by 11 that they are repeating the same calculations over and over again, and conclude they have a repeating decimal. By paying attention to the calculation of slope as they repeatedly check whether points are on the line through (1, 2) with slope 3, middle school students might abstract the equation $(y - 2)/(x - 1) = 3$. Noticing the regularity in the way terms cancel when expanding $(x - 1)(x + 1)$, $(x - 1)(x^2 + x + 1)$, and $(x - 1)(x^3 + x2 + x + 1)$ might lead them to the general formula for the sum of a geometric series. As they work to solve a problem, mathematically proficient students maintain oversight of the process, while attending to the details. They continually evaluate the reasonableness of their intermediate results.

Indicate the chapter(s), section(s), or page(s) reviewed.

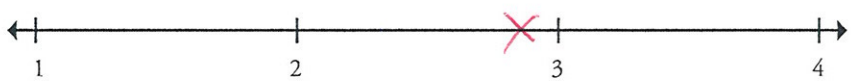
Ch. 5, 8

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Consistent questioning pattern throughout helps students notice repeated reasoning and regularity

Overall Rating

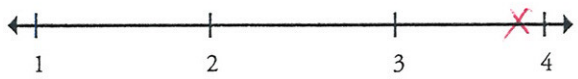
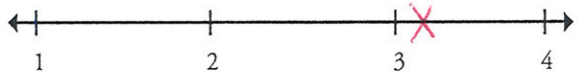
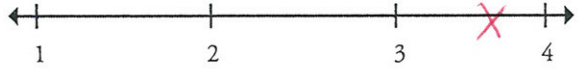
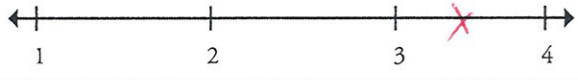


Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA II — NUMBER AND QUANTITY (N)

The Complex Number System (N-CN)

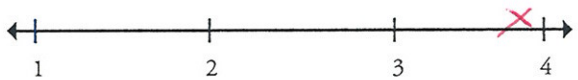
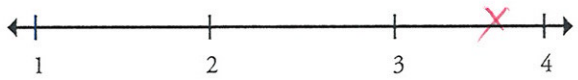
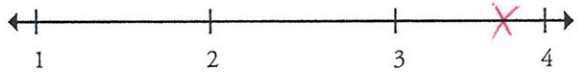
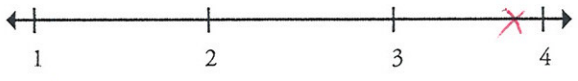
Perform arithmetic operations with complex numbers.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
N-CN.1 Know there is a complex number i such that $i^2 = -1$, and every complex number has the form $a + bi$ with a and b real. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Ch. 9 Ch. 7	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence** well developed and guided from the basics **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA II — NUMBER AND QUANTITY (N)

The Complex Number System (N-CN)

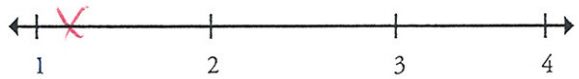
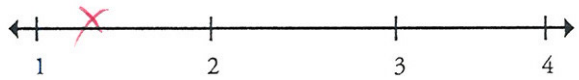
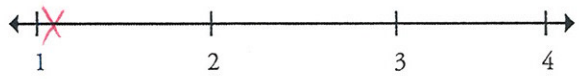
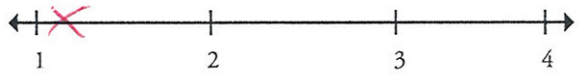
Perform arithmetic operations with complex numbers.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
N-CN.2 Use the relation $i^2 = -1$ and the commutative, associative, and distributive properties to add, subtract, and multiply complex numbers. Note: i^2 as highest power of i. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Ch. 7	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence** well developed and balanced with comments and examples **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA II — NUMBER AND QUANTITY (N)

The Complex Number System (N-CN)

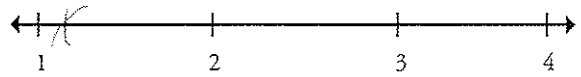
Use complex numbers in polynomial identities and equations.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
N-CN.7 Solve quadratic equations with real coefficients that have complex solutions. Note: Polynomials with real coefficients. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Ch. 8	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** a little investigation and very little mention about Complex solutions Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA II — NUMBER AND QUANTITY (N)

The Complex Number System (N-CN)

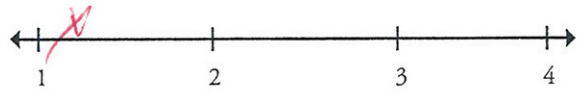
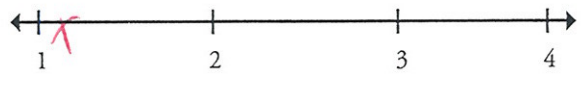
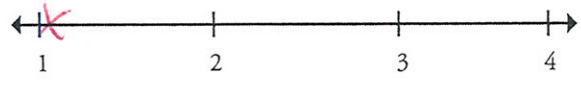
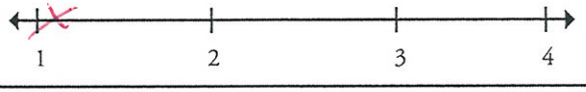
Use complex numbers in polynomial identities and equations.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
N-CN.8 (+) Extend polynomial identities to the complex numbers. *For example, rewrite $x^2 + 4$ as $(x + 2i)(x – 2i)$.* Note: Polynomials with real coefficients. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Ch. 8	Important Mathematical Ideas  Skills and Procedures Mathematical Relationships **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Students are told to solve by factoring, but no discussion or examples leading up to it Overall Rating

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA II — NUMBER AND QUANTITY (N)

The Complex Number System (N-CN)

Use complex numbers in polynomial identities and equations.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
N-CN.9 (+) Know the Fundamental Theorem of Algebra; show that it is true for quadratic polynomials. Note: Polynomials with real coefficients. **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence** The FTA is stated and students are asked to apply it, but not well developed or related to anything else. **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA II — FUNCTIONS (F)

Building Functions (F-BF)

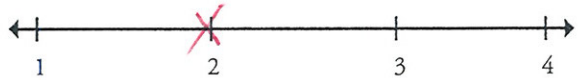
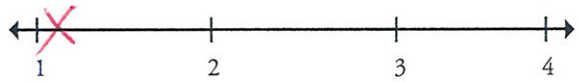
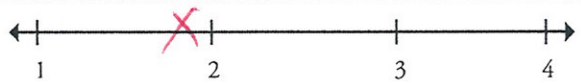
Build a function that models a relationship between two quantities.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
F-BF.1b 1. Write a function that describes a relationship between two quantities.* b. Combine standard function types using arithmetic operations. *For example, build a function that models the temperature of a cooling body by adding a constant function to a decaying exponential, and relate these functions to the model.* Note: Include all types of functions studied. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** latin manuscript	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** missing Overall Rating 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA II — FUNCTIONS (F)

Building Functions (F-BF)

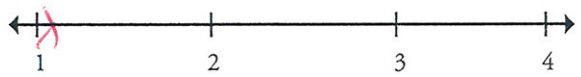
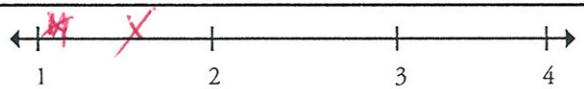
Build new functions from existing functions.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
F-BF.3 Identify the effect on the graph of replacing *f(x)* by *f(x) + k*, *k f(x)*, *f(kx)*, and *f(x + k)* for specific values of *k* (both positive and negative); find the value of *k* given the graphs. Experiment with cases and illustrate an explanation of the effects on the graph using technology. *Include recognizing even and odd functions from their graphs and algebraic expressions for them.* Note: Include simple radical, rational, and exponential functions; emphasize common effect of each transformation across function types. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Ch. 2 Ch. 6 Ch. 12	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** mentioned as something they learned earlier, not developed. → Then given exercises to do. Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA II — FUNCTIONS (F)

Building Functions (F-BF)

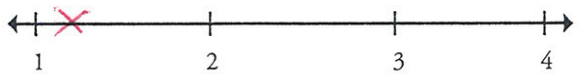
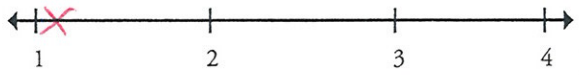
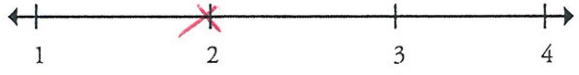
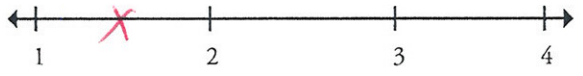
Build new functions from existing functions.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
F-BF.4a 4. Find inverse functions. a. Solve an equation of the form $f(x) = c$ for a simple function f that has an inverse and write an expression for the inverse. *For example,* $f(x) = 2x^3$ *or* $f(x) = (x+1)/(x-1)$ *for* $x \neq 1$. Note: Include simple radical, rational, and exponential functions; emphasize common effect of each transformation across function types. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Ch 2 Ch 10	Important Mathematical Ideas Skills and Procedures  Mathematical Relationships **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Inverses are almost exclusively presented in a graphical manner, not as solving an equation Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA II — FUNCTIONS (F)

Linear, Quadratic, and Exponential Models (F-LE)

Construct and compare linear, quadratic, and exponential models and solve problems.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-LE.4 For exponential models, express as a logarithm the solution to $ab^{ct} = d$ where a, c, and d are numbers and the base b is 2, 10, or e; evaluate the logarithm using technology.* Note: Logarithms as solutions for exponentials. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Ch. 3 Ch. 4	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence** evaluating logs was a problem set **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** I did not find any mention that a log is the solution of $ab^{ct} = d$ Overall Rating